



2010

MISSOURI

EMERGENCY SERVICE VEHICLE

CRASHES

**MISSOURI STATE HIGHWAY PATROL
STATISTICAL ANALYSIS CENTER
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FOREWORD

The mission of the Missouri Department of Transportation, Office of Highway Safety, Traffic and Highway Safety Division is to reduce the number and severity of traffic crashes throughout the state. In order to develop effective traffic safety programs and countermeasures, reliable statistical planning documents are imperative.

For this reason, the 2010 Missouri Emergency Vehicle Crashes report was produced by the Statistical Analysis Center of the Missouri State Highway Patrol at the request of the Office of Highway Safety.

The dedication of the individuals who compiled this report is to be commended. Without their diligence and expertise, Missouri officials would be hard-pressed to have this statistical data available in such a usable format.

It is our desire that traffic safety officials and managers of emergency vehicles would carefully review this publication to analyze local crash experience and evaluate their operations to ensure that proper precautions and training measures have been implemented.

If you require more information on traffic safety programs or need additional statistical information, please contact the Missouri Department of Transportation, Office of Highway Safety, Traffic and Highway Safety Division at 1-800-800-2358.

A handwritten signature in black ink, reading "Leanna Depue". The signature is fluid and cursive, with the first name "Leanna" and last name "Depue" clearly distinguishable.

Leanna Depue, Highway Safety Director
MoDOT Traffic and Highway Safety Division

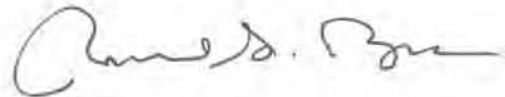
ACKNOWLEDGEMENTS

The Missouri Department of Transportation, Office of Highway Safety, Traffic and Highway Safety Division requested publication of this report to determine the magnitude, severity, and characteristics of traffic crashes involving emergency service vehicles in the State.

The primary source of information in this report was traffic crash data obtained from the State-wide Traffic Accident Records System (STARS). The Missouri State Highway Patrol, Traffic Records Division, is responsible for coordinating the STARS program as well as encoding all traffic crash data being reported.

Special recognition is given to all Missouri law enforcement agencies and officers who provide traffic crash investigation services on Missouri roadways and report their findings to STARS. Because of their efforts, traffic safety authorities have the capability of conducting analysis on Missouri's emergency service vehicle traffic crash problems.

Finally, the U.S. Department of Transportation, National Highway Traffic Safety Administration, has supported the Statistical Analysis Center's efforts to provide meaningful research services and publications to Missouri traffic safety authorities. Their financial support and technical assistance is appreciated.



Ronald G. Beck, Director
Statistical Analysis Center
Missouri State Highway Patrol

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EXECUTIVE SUMMARY

The purpose of this report is to provide the Missouri State Highway Patrol, the Missouri Department of Transportation, Office of Highway Safety, Traffic and Highway Safety Division, and other State and local authorities with information on the problem of emergency service vehicle traffic crashes in the State of Missouri. In 2010, Missouri experienced 1,584 emergency service vehicle traffic crashes. Crashes of this nature are of special concern to traffic safety authorities because emergency service vehicles and, more importantly, their staff are critical public safety resources whose loss due to traffic crashes adversely affects the public welfare.

The primary source of data used in this study was the Missouri Statewide Traffic Accident Records System (STARS).

In 2010, 1,629 emergency service vehicles were involved in crashes in the State. Four persons were killed and 331 persons were injured in these traffic crashes. Of the 1,629 emergency service vehicles involved, 353 (21.7%) were on an emergency run at the time of the crash. The seriousness of these traffic crashes is compounded by the fact that the incident no doubt delayed or prevented the unit from responding to the original emergency situation.

Police vehicles account for the majority of emergency service vehicles involved in Missouri traffic crashes. Of the 1,629 emergency vehicles involved in 2010 traffic crashes, 1,211 (74.3%) were law enforcement vehicles. This finding is not surprising since there are a significantly greater number of police vehicles in operation compared to ambulances and fire vehicles. In addition, many law enforcement units patrol Missouri roadways throughout their shift, while ambulances and fire vehicles are normally stationed at fixed locations until called to respond to a situation.

Of the 1,629 emergency vehicles involved in 2010 Missouri traffic crashes, 170 (10.4%) were fire vehicles. Although no accurate count is available, the number of fire vehicles in the State is estimated to be larger than the ambulance vehicle population but much less than the police vehicle population. As with ambulances, fire vehicles made up a higher proportion of those vehicles involved in traffic crashes while on emergency runs. Of the 353 vehicles making an emergency run when involved in a traffic crash in 2010, 56 (15.9%) were vehicles of this type.

Of the 1,629 emergency service vehicles involved in 2010 Missouri traffic crashes, 180 (11.1%) were ambulances. Ambulances also made up a higher proportion of emergency service vehicles involved in traffic crashes while making emergency runs. Of the 353 emergency service vehicles involved in 2010 Missouri traffic crashes while on emergency runs, 53 (15.0%) were ambulances.

INTRODUCTION

This report is one in a series which identifies the magnitude, severity, and characteristics of emergency service vehicles involved in traffic crashes occurring in the State of Missouri. It describes Missouri's emergency service vehicle traffic crash experience in 2008 - 2010 with emphasis on the most recent year (2010).

Missouri traffic safety authorities have expressed an interest in studying these types of incidents for a number of reasons. First, in a sizable portion of these incidents, the emergency service vehicles are responding to other emergency situations. In most instances, their involvement in traffic crashes either delays or totally prevents them from providing the emergency care services being requested. The timeliness of providing their services can be a critical factor in preventing further death, serious injury, and/or property damage in emergency situations.

Second, emergency service vehicles and, more importantly, the staff who operate them are critical public safety resources which the community can ill afford to lose as a result of their involvement in traffic crashes. Costs associated with vehicle replacement or repair are high because these types of vehicles are configured for emergency response (i.e., heavy suspension systems, larger engines, improved braking systems, emergency lights, siren, etc.). Even more significant are losses resulting from qualified emergency service staff being killed or injured in these traffic crashes. The loss of technically trained emergency service manpower reduces the community's capabilities to adequately respond to future emergency situations.

Finally, emergency vehicles involved in traffic crashes can result in death and injury to not only emergency vehicle staff but to other parties involved in the traffic crash.

Data used in this study were obtained from the Missouri Statewide Traffic Accident Records System (STARS). This system is maintained by the Missouri State Highway Patrol (MSHP). In accordance with State statute, law enforcement agencies are required to investigate traffic crashes occurring on public roadways if they involve a death or personal injury or property damage over \$500.00. They submit their findings manually or electronically on a standard traffic accident report form to the STARS system. This standard traffic accident report form contains two fields designed to identify whether the vehicles involved were emergency service vehicles, the type of emergency service vehicle (police, fire, ambulance, or other), and whether or not it was on an emergency run.

Data from the traffic accident report forms are encoded by MSHP staff in computerized files. These files were made available to the MSHP Statistical Analysis Center (SAC) staff who conducted the analysis.

Not all motor vehicle incidents involving damage to emergency service vehicles or injury to its staff were analyzed in this study due to data non-availability. Data on traffic crashes occurring on private property, such as a private driveway, were not attainable for this analysis. In addition, certain incidents are not classified as traffic crashes. For instance, cases where police establish a roadblock and a pursued person uses their vehicle to intentionally ram the blocking police vehicle are not classified as traffic crashes and are not included in this analysis.

The findings from this study are described in the following four sections. The first section provides an overview of Missouri's emergency services traffic crash problem. The second section describes the findings from an analysis which focuses on police vehicle involvement. The third section describes fire vehicle involvement and the last section covers ambulance involvement.

1.0 EMERGENCY SERVICE VEHICLE INVOLVEMENT OVERVIEW

This section presents a series of data displays which describe Missouri's emergency service vehicle traffic crash activity. Traffic crashes involving emergency service vehicles are defined as any crash in which one or more emergency service vehicles were directly involved in the incident. Emergency service vehicles include those assigned to law enforcement agencies, fire departments, and ambulance service agencies. In addition, vehicles operated by other agencies, such as public utilities and public service corporations, are considered emergency vehicles but only when they are actually performing emergency services.

SUMMARY OF ANALYSIS

- In 2010 there were 1,584 traffic crashes involving 1,629 emergency service vehicles in the State of Missouri. Four persons were killed and 331 persons were injured in these traffic crashes. One person was killed or injured every 1.1 days in these types of crashes in 2010.
- Police vehicles comprise the largest number of emergency service vehicles involved in Missouri's traffic crashes. Of the 1,629 emergency service vehicles involved, 1,211 (74.3%) were police vehicles. A total of 353 emergency service vehicles were on emergency runs when the traffic crash occurred. Of these, 214 (60.6%) were police vehicles. Law enforcement officers on-duty annual miles of travel are, no doubt, much greater than other types of emergency service providers. A large proportion of law enforcement officers are assigned to patrol Missouri's roadways throughout their normal shift of operations for crime prevention purposes as well as to provide quick response to calls for services. Normally, fire and ambulance service personnel are stationed at fixed locations from which they respond to emergency situations. In addition, there are larger numbers of police vehicles working Missouri's roadways than either ambulances or fire vehicles. The fact that law enforcement officers' on-duty miles of travel are substantially greater increases their risk of being involved in traffic crashes.
- Ambulances were the second most frequent emergency vehicle type involved in Missouri's 2010 traffic crashes. Of the 1,629 emergency vehicles involved, 180 (11.1%) were ambulances. Like fire vehicles, ambulances were more likely to be involved in a traffic crash when on an emergency run. Of the 353 emergency vehicles on emergency run when the traffic crash occurred, 53 (15.0%) were ambulances.
- Fire vehicles were the third most common type of emergency vehicle involved in Missouri's traffic crashes in 2010. Of the 1,629 emergency vehicles involved in 2010 Missouri traffic crashes, 170 (10.4%) were fire vehicles. Of the 353 emergency vehicles on emergency run at the time of the traffic crash, 56 (15.9%) were fire vehicles.
- Emergency vehicles classified as 'Other' made up a small proportion of those involved in Missouri's 2010 traffic crashes. Of the 1,629 emergency vehicles involved, only 68 (4.2%) were emergency vehicles classified as 'Other'.

2010 MISSOURI TRAFFIC CRASHES

EMERGENCY SERVICE (ES) VEHICLE INVOLVEMENT

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|---------------------------|------------|--------------|--------------------|--------------|--------------------|--------------|----------------|--------------|
| ES VEHICLE INVOLVED | 4 | 0.5 | 261 | 0.7 | 1,314 | 1.2 | 1,579 | 1.0 |
| NO ES VEHICLE INVOLVED | 774 | 99.5 | 37,352 | 99.3 | 111,648 | 98.8 | 149,774 | 99.0 |
| TOTAL | 778 | 100.0 | 37,613 | 100.0 | 112,962 | 100.0 | 151,353 | 100.0 |

TABLE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE INVOLVED CRASHES

2007 - 2010

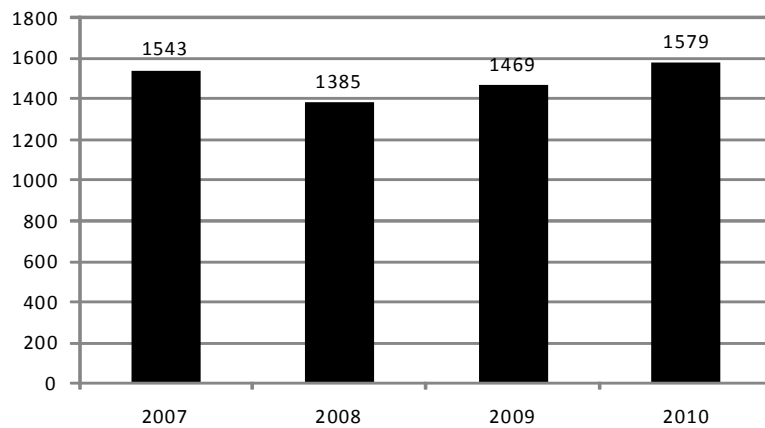


FIGURE 1.0.1

MISSOURI EMERGENCY SERVICE VEHICLE PERSONAL INJURY PROBLEM ANALYSIS CLOCK

2010

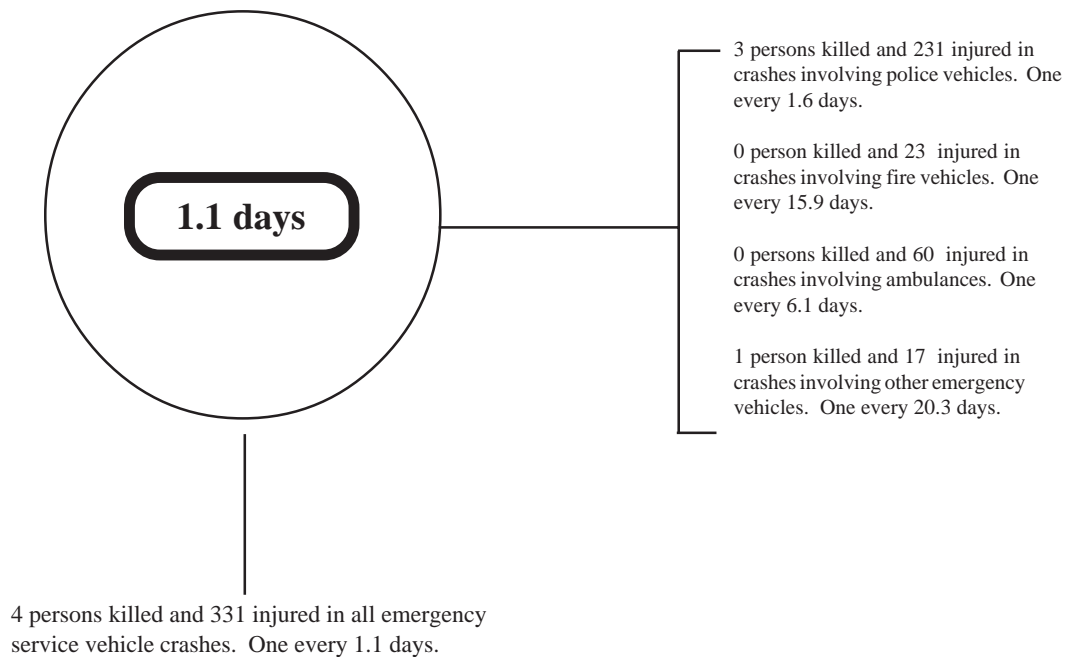


FIGURE 1.0.2

2010 MISSOURI EMERGENCY SERVICE (ES) VEHICLE CRASHES

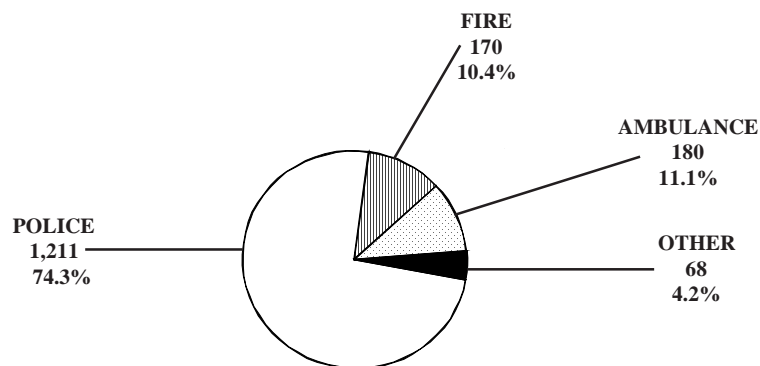
TYPE OF EMERGENCY SERVICE VEHICLE INVOLVED

| | FATAL | PERSONAL INJURY | PROPERTY DAMAGE | TOTAL | NUMBER OF ES VEHICLES INVOLVED¹ |
|---|--------------|----------------------------|----------------------------|--------------|---|
| TOTAL NUMBER OF ES VEHICLE CRASHES | 4 | 264 | 1,316 | 1,584 | 1,629 |
| INVOLVING | | | | | |
| POLICE VEHICLE | 3 | 181 | 998 | 1,182 | 1,211 |
| FIRE VEHICLE | 0 | 23 | 144 | 167 | 170 |
| AMBULANCE | 0 | 47 | 126 | 173 | 180 |
| OTHER ES VEHICLE | 1 | 13 | 48 | 62 | 68 |

¹The number of emergency service vehicles involved does not equal the number of emergency service traffic crashes since there are cases where more than one emergency service vehicle was involved in the same traffic crash. There were 1,584 traffic crashes involving 1,629 emergency service vehicles

TABLE 1.0.2

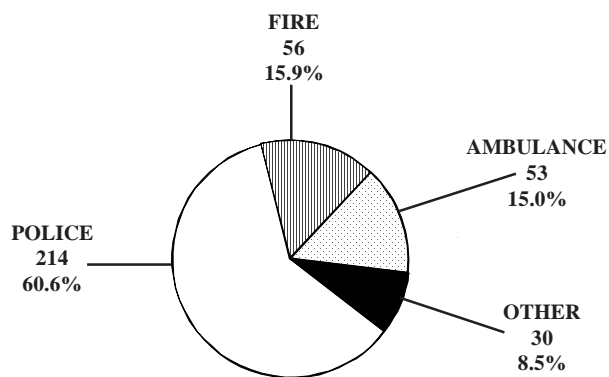
**TYPE OF EMERGENCY SERVICE VEHICLES INVOLVED IN
2010 MISSOURI TRAFFIC CRASHES**



TOTAL = 1,629

FIGURE 1.0.3

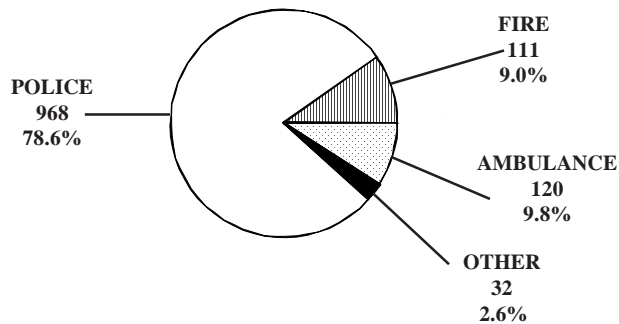
**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 2010 MISSOURI
TRAFFIC CRASHES WHILE ON
EMERGENCY RUN**



TOTAL = 353

FIGURE 1.0.4

**TYPE OF EMERGENCY SERVICE
VEHICLES INVOLVED IN 2010 MISSOURI
TRAFFIC CRASHES NOT ON
EMERGENCY RUN**



TOTAL = 1,231

FIGURE 1.0.5

2.0 POLICE VEHICLE INVOLVEMENT

This section presents a series of data displays identifying police vehicle involvement in Missouri's traffic crash activity. Police vehicle traffic crashes are defined as any crash in which one or more police vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the police vehicle drivers involved in these traffic crashes.

2010 SUMMARY ANALYSIS

- In 2010, there were 1,182 traffic crashes involving one or more police vehicles in the State of Missouri. Three people were killed and 231 were injured in these crashes.
- In 18.1% of the traffic crashes involving police vehicles, the police vehicle was on an emergency run at the time of the incident.
- In 2010, one person was killed or injured in a police vehicle related crash every 1.6 days in the State of Missouri.
- Of all 2010 crashes involving police vehicles, the first harmful event in 48.9% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 23.5% of the cases, it involved a motor vehicle striking a fixed object. In 17.3% of the cases, the vehicle struck an animal.
- Of all 2010 crashes involving police vehicles, 53.6% occurred in an urban area of the State and 46.4% occurred in a rural area.
- Of all police vehicle drivers in 2010 traffic crashes, 90.0% were male and 10.0% were female. The average age of the police vehicle driver was 35.8 years.
- There were 1,211 police vehicles in the 1,182 traffic crashes in the State. Of these, 1,046 or 86.8% were automobiles.

2010 POLICE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % | TOTAL KILLED | TOTAL NUMBER ¹ INJURED | POLICE VEHICLE DRIVERS/PASSENGERS ² | |
|------------------------------|-------|-------|--------------------|-------|--------------------|-------|-------|-------|-----------------|--------------------------------------|---|---------|
| | | | | | | | | | | | KILLED | INJURED |
| POLICE VEHICLE ON RUN | 1 | 33.3 | 44 | 24.3 | 169 | 16.9 | 214 | 18.1 | 1 | 58 | 2 | 119 |
| POLICE VEHICLE NOT ON RUN | 2 | 66.7 | 137 | 75.7 | 829 | 83.1 | 968 | 81.9 | 2 | 173 | 0 | 36 |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 | 3 | 231 | 2 | 155 |

¹This statistic indicates the total number of persons killed and injured in a crash where one or more police vehicles were involved.

²This statistic indicates the number of police vehicle drivers and passengers killed and injured.

TABLE 2.0.1

2009 and 2010 POLICE VEHICLE INVOLVED CRASH ANALYSIS

| | 2009 | 2010 | RATE OF CHANGE |
|-----------------|-------|-------|----------------|
| FATAL | 2 | 3 | +50.0 |
| PERSONAL INJURY | 183 | 181 | -1.1 |
| PROPERTY DAMAGE | 908 | 998 | +9.9 |
| TOTAL | 1,093 | 1,182 | +8.1 |

TABLE 2.0.2

2010 POLICE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------------------|-------|-------|--------------------|-------|--------------------|-------|-------|-------|
| ANIMAL | 0 | 0.0 | 7 | 3.9 | 197 | 19.7 | 204 | 17.3 |
| BICYCLIST | 0 | 0.0 | 5 | 2.8 | 2 | 0.2 | 7 | 0.6 |
| FIXED OBJECT | 1 | 33.3 | 23 | 12.7 | 254 | 25.5 | 278 | 23.5 |
| OTHER OBJECT | 0 | 0.0 | 0 | 0.0 | 38 | 3.8 | 38 | 3.2 |
| PEDESTRIAN | 0 | 0.0 | 7 | 3.9 | 3 | 0.3 | 10 | 0.9 |
| VEHICLE IN TRANSPORT | 2 | 66.7 | 127 | 70.2 | 449 | 45.0 | 578 | 48.9 |
| VEHICLE ON OTHER ROADWAY | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| PARKED VEHICLE | 0 | 0.0 | 7 | 3.9 | 44 | 4.4 | 51 | 4.3 |
| NON-COLLISION OVERTURN | 0 | 0.0 | 3 | 1.7 | 2 | 0.2 | 5 | 0.4 |
| NON-COLLISION OTHER | 0 | 0.0 | 2 | 1.1 | 9 | 0.9 | 11 | 0.9 |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

TABLE 2.0.3

2010 POLICE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| URBAN | 1 | 33.3 | 112 | 61.9 | 520 | 52.1 | 633 | 53.6 |
| RURAL | 2 | 66.7 | 69 | 38.1 | 478 | 47.9 | 549 | 46.4 |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

TABLE 2.0.4

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| STRAIGHT | 2 | 66.7 | 161 | 89.4 | 830 | 83.7 | 993 | 84.5 |
| CURVE | 1 | 33.3 | 19 | 10.6 | 162 | 16.3 | 182 | 15.5 |
| UNKNOWN | 0 | - | 1 | - | 6 | - | 7 | - |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

TABLE 2.0.5

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| LEVEL | 0 | 0.0 | 126 | 70.0 | 639 | 64.8 | 765 | 65.4 |
| HILL | 2 | 66.7 | 49 | 27.2 | 325 | 33.0 | 376 | 32.2 |
| CREST | 1 | 33.3 | 5 | 2.8 | 22 | 2.2 | 28 | 2.4 |
| UNKNOWN | 0 | - | 1 | - | 12 | - | 13 | - |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

TABLE 2.0.6

2010 POLICE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------|-------|-------|--------------------|-------|--------------------|-------|-------|-------|
| DRY | 1 | 33.3 | 154 | 86.5 | 762 | 77.1 | 917 | 78.4 |
| WET | 2 | 66.7 | 18 | 10.1 | 134 | 13.6 | 154 | 13.2 |
| SNOW | 0 | 0.0 | 5 | 2.8 | 56 | 5.7 | 61 | 5.2 |
| ICE | 0 | 0.0 | 0 | 0.0 | 32 | 3.2 | 32 | 2.7 |
| SLUSH | 0 | 0.0 | 1 | 0.6 | 1 | 0.1 | 2 | 0.2 |
| MUD | 0 | 0.0 | 0 | 0.0 | 4 | 0.4 | 4 | 0.3 |
| STANDING WATER | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| MOVING WATER | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| UNKNOWN | 0 | - | 3 | - | 9 | - | 12 | - |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

TABLE 2.0.7

2010 POLICE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|-----------------------|-------|-------|--------------------|-------|--------------------|-------|-------|-------|
| INTERSTATE | 0 | 0.0 | 10 | 5.5 | 75 | 7.5 | 85 | 7.2 |
| U.S. HIGHWAY | 1 | 33.3 | 18 | 9.9 | 101 | 10.1 | 120 | 10.2 |
| STATE NUMBERED | 2 | 66.7 | 38 | 21.0 | 162 | 16.2 | 202 | 17.1 |
| SINGLE STATE LETTERED | 0 | 0.0 | 8 | 4.4 | 80 | 8.0 | 88 | 7.5 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 8 | 4.4 | 27 | 2.7 | 35 | 3.0 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 15 | 1.5 | 15 | 1.3 |
| COUNTY ROAD | 0 | 0.0 | 11 | 6.1 | 106 | 10.6 | 117 | 9.9 |
| CITY STREET | 0 | 0.0 | 84 | 46.4 | 370 | 37.1 | 454 | 38.4 |
| INTERSTATE LOOP | 0 | 0.0 | 1 | 0.6 | 2 | 0.2 | 3 | 0.3 |
| OTHER ¹ | 0 | 0.0 | 3 | 1.7 | 60 | 6.0 | 63 | 5.3 |
| TOTAL | 3 | 100.0 | 181 | 100.0 | 998 | 100.0 | 1,182 | 100.0 |

¹"Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.8

2010 POLICE VEHICLE INVOLVED CRASHES
HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

| | URBAN | | | | | | | | RURAL | | | | | | | |
|-----------------------|-------|-------|-----------------|-------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-----------------|-------|-------|-------|
| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
| INTERSTATE | 0 | 0.0 | 6 | 5.4 | 35 | 6.7 | 41 | 6.5 | 0 | 0.0 | 4 | 5.8 | 40 | 8.4 | 44 | 8.0 |
| U.S. HIGHWAY | 0 | 0.0 | 5 | 4.5 | 31 | 6.0 | 36 | 5.7 | 1 | 50.0 | 13 | 18.8 | 70 | 14.6 | 84 | 15.3 |
| STATE NUMBERED | 1 | 100.0 | 18 | 16.1 | 58 | 11.2 | 77 | 12.2 | 1 | 50.0 | 20 | 29.0 | 104 | 21.8 | 125 | 22.8 |
| SINGLE STATE LETTERED | 0 | 0.0 | 1 | 0.9 | 14 | 2.7 | 15 | 2.4 | 0 | 0.0 | 7 | 10.1 | 66 | 13.8 | 73 | 13.3 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 3 | 2.7 | 5 | 1.0 | 8 | 1.3 | 0 | 0.0 | 5 | 7.3 | 22 | 4.6 | 27 | 4.9 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 7 | 1.4 | 7 | 1.1 | 0 | 0.0 | 0 | 0.0 | 8 | 1.7 | 8 | 1.5 |
| COUNTY ROAD | 0 | 0.0 | 2 | 1.8 | 14 | 2.7 | 16 | 2.5 | 0 | 0.0 | 9 | 13.0 | 92 | 19.3 | 101 | 18.4 |
| CITY STREET | 0 | 0.0 | 75 | 67.0 | 314 | 60.4 | 389 | 61.5 | 0 | 0.0 | 9 | 13.0 | 56 | 11.7 | 65 | 11.8 |
| INTERSTATE LOOP | 0 | 0.0 | 1 | 0.9 | 1 | 0.2 | 2 | 0.3 | 0 | 0.0 | 0 | 0.0 | 1 | 0.2 | 1 | 0.2 |
| OTHER ¹ | 0 | 0.0 | 1 | 0.9 | 41 | 7.9 | 42 | 6.6 | 0 | 0.0 | 2 | 2.9 | 19 | 4.0 | 21 | 3.8 |
| TOTAL | 1 | 100.0 | 112 | 100.0 | 520 | 100.0 | 633 | 100.0 | 2 | 100.0 | 69 | 100.0 | 478 | 100.0 | 549 | 100.0 |

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 2.0.9

2010 POLICE VEHICLE INVOLVED CRASHES**MONTH OF YEAR**

| MONTH | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| JANUARY | 78 | 6.6 |
| FEBRUARY | 96 | 8.1 |
| MARCH | 79 | 6.7 |
| APRIL | 86 | 7.3 |
| MAY | 108 | 9.1 |
| JUNE | 98 | 8.3 |
| JULY | 98 | 8.3 |
| AUGUST | 89 | 7.5 |
| SEPTEMBER | 103 | 8.7 |
| OCTOBER | 118 | 10.0 |
| NOVEMBER | 107 | 9.1 |
| DECEMBER | 122 | 10.3 |
| TOTAL | 1,182 | 100.0 |

TABLE 2.0.10**2010 POLICE VEHICLE INVOLVED CRASHES****DAY OF WEEK**

| DAY | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| SUNDAY | 140 | 11.9 |
| MONDAY | 147 | 12.5 |
| TUESDAY | 172 | 14.6 |
| WEDNESDAY | 189 | 16.0 |
| THURSDAY | 176 | 14.9 |
| FRIDAY | 189 | 16.0 |
| SATURDAY | 168 | 14.2 |
| UNKNOWN | 1 | - |
| TOTAL | 1,182 | 100.0 |

TABLE 2.0.11

2010 POLICE VEHICLE INVOLVED CRASHES

HOUR OF DAY

| HOUR | FREQUENCY | PERCENT |
|-------------------|-----------|---------|
| 12:01A - 12:59A | 55 | 4.7 |
| 01:00A - 01:59A | 46 | 3.9 |
| 02:00A - 02:59A | 33 | 2.8 |
| 03:00A - 03:59A | 34 | 2.9 |
| 04:00A - 04:59A | 20 | 1.7 |
| 05:00A - 05:59A | 25 | 2.1 |
| 06:00A - 06:59A | 24 | 2.0 |
| 07:00A - 07:59A | 43 | 3.6 |
| 08:00A - 08:59A | 40 | 3.4 |
| 09:00A - 09:59A | 40 | 3.4 |
| 10:00A - 10:59A | 56 | 4.8 |
| 11:00A - 11:59A | 46 | 3.9 |
| NOON - 12:59P | 59 | 5.0 |
| 01:00P - 01:59P | 51 | 4.3 |
| 02:00P - 02:59P | 53 | 4.5 |
| 03:00P - 03:59P | 61 | 5.2 |
| 04:00P - 04:59P | 58 | 4.9 |
| 05:00P - 05:59P | 76 | 6.4 |
| 06:00P - 06:59P | 53 | 4.5 |
| 07:00P - 07:59P | 54 | 4.6 |
| 08:00P - 08:59P | 54 | 4.6 |
| 09:00P - 09:59P | 59 | 5.0 |
| 10:00P - 10:59P | 73 | 6.2 |
| 11:00P - MIDNIGHT | 67 | 5.7 |
| UNKNOWN | 2 | -- |
| TOTAL | 1,182 | 100.0 |

TABLE 2.0.12

2010 MISSOURI POLICE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

| FATAL AND PERSONAL INJURY POLICE VEHICLE CRASHES = 184 | | | | TOTAL POLICE VEHICLE CRASHES = 1,182 | | |
|---|--|---|-----------------|--|---|------------------|
| | DRIVER OF POLICE VEHICLE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL F & PI | DRIVER OF POLICE VEHICLE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL CRASHES |
| VEHICLE DEFECTS | 0.0 | 0.0 | 0.0 | 0.6 | 0.5 | 1.1 |
| TRAFFIC CONTROL INOPERATIVE / MISSING | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| IMPROPERLY STOPPED ON ROADWAY | 0.0 | 0.5 | 0.5 | 0.1 | 1.1 | 1.1 |
| EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS | 8.2 | 9.8 | 17.4 | 8.8 | 4.7 | 13.2 |
| IMPROPER PASSING | 0.5 | 1.1 | 1.6 | 0.3 | 0.6 | 0.8 |
| VIOLATION OF STOP SIGN | 2.2 | 6.5 | 8.7 | 0.8 | 1.9 | 2.6 |
| WRONG SIDE NOT PASSING | 0.0 | 1.6 | 1.6 | 0.1 | 0.3 | 0.4 |
| FOLLOWING TOO CLOSE | 3.3 | 7.1 | 10.3 | 2.9 | 3.5 | 6.3 |
| IMPROPER SIGNAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 |
| IMPROPER BACKING | 0.0 | 1.1 | 1.1 | 4.6 | 2.5 | 7.0 |
| IMPROPER TURN | 1.1 | 2.2 | 3.3 | 1.6 | 1.8 | 3.4 |
| IMPROPER LANE USAGE / CHANGE | 4.3 | 7.1 | 11.4 | 3.0 | 3.6 | 6.5 |
| WRONG WAY ONE-WAY STREET | 0.5 | 1.1 | 1.6 | 0.1 | 0.3 | 0.4 |
| IMPROPER START FROM PARK | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 |
| IMPROPERLY PARKED | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 |
| FAILED TO YIELD | 9.8 | 23.9 | 33.2 | 4.3 | 10.3 | 14.5 |
| DRINKING | 1.1 | 5.4 | 6.5 | 0.6 | 2.5 | 3.0 |
| DRUGS | 0.0 | 2.2 | 2.2 | 0.1 | 0.9 | 1.0 |
| PHYSICAL IMPAIRMENT | 1.6 | 1.1 | 2.7 | 0.3 | 0.5 | 0.8 |
| INATTENTION | 16.3 | 14.7 | 29.3 | 18.3 | 9.8 | 27.6 |

¹This table identifies the percentage of crashes involving one or more police vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his police vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2010 Missouri police vehicle crashes, it was found that a police vehicle driver was speeding in 8.2% of the crashes. In 9.8% of the crashes another driver was speeding. In 17.4% of the crashes either a police vehicle driver, another driver, or both drivers were speeding.

TABLE 2.0.13

POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| AUTOMOBILE | 3 | 100.0 | 157 | 83.1 | 886 | 87.5 | 1,046 | 86.8 |
| SPORT UTILITY VEHICLE | 0 | 0.0 | 12 | 6.4 | 64 | 6.3 | 76 | 6.3 |
| VAN | 0 | 0.0 | 4 | 2.1 | 11 | 1.1 | 15 | 1.2 |
| BUS | 0 | 0.0 | 2 | 1.1 | 0 | 0.0 | 2 | 0.2 |
| MOTORCYCLE | 0 | 0.0 | 3 | 1.6 | 4 | 0.4 | 7 | 0.6 |
| BICYCLE | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 | 1 | 0.1 |
| OTHER TRANSPORT | 0 | 0.0 | 0 | 0.0 | 1 | 0.1 | 1 | 0.1 |
| PICK-UP TRUCK | 0 | 0.0 | 9 | 4.8 | 45 | 4.4 | 54 | 4.5 |
| OTHER TRUCK | 0 | 0.0 | 1 | 0.5 | 2 | 0.2 | 3 | 0.3 |
| UNKNOWN | 0 | - | 2 | - | 4 | - | 6 | - |
| TOTAL | 3 | 100.0 | 191 | 100.0 | 1,017 | 100.0 | 1,211 | 100.0 |

TABLE 2.0.14

POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| KNOWN DRIVER INVOLVED | 3 | 100.0 | 191 | 100.0 | 1,013 | 99.6 | 1,207 | 99.7 |
| UNKNOWN DRIVER INVOLVED | 0 | 0.0 | 0 | 0.0 | 4 | 0.4 | 4 | 0.3 |
| TOTAL | 3 | 100.0 | 191 | 100.0 | 1,017 | 100.0 | 1,211 | 100.0 |

TABLE 2.0.15

DRIVERS OF POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|----------|--------------|--------------------|--------------|--------------------|--------------|--------------|--------------|
| MALE | 3 | 100.0 | 169 | 88.5 | 914 | 90.2 | 1,086 | 90.0 |
| FEMALE | 0 | 0.0 | 22 | 11.5 | 99 | 9.8 | 121 | 10.0 |
| UNKNOWN | 0 | - | 0 | - | 4 | - | 4 | - |
| TOTAL | 3 | 100.0 | 191 | 100.0 | 1,017 | 100.0 | 1,211 | 100.0 |

TABLE 2.0.16

DRIVERS OF POLICE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

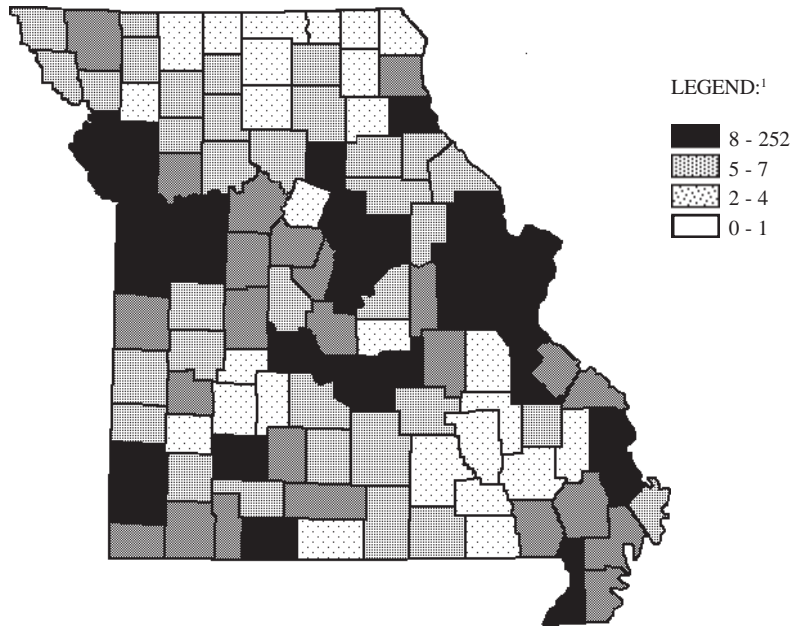
AGE OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------------|-------------|--------------|--------------------|--------------|--------------------|--------------|--------------|--------------|
| AVERAGE AGE OF DRIVER | 30.0 | - | 36.3 | - | 35.7 | - | 35.8 | - |
| 15 - 20 YEARS | 0 | 0.0 | 3 | 1.6 | 13 | 1.3 | 16 | 1.3 |
| 21 - 25 YEARS | 1 | 33.3 | 25 | 13.2 | 156 | 15.5 | 182 | 15.2 |
| 26 - 30 YEARS | 1 | 33.3 | 43 | 22.8 | 193 | 19.2 | 237 | 19.8 |
| 31 - 35 YEARS | 0 | 0.0 | 31 | 16.4 | 201 | 20.0 | 232 | 19.4 |
| 36 - 40 YEARS | 1 | 33.3 | 30 | 15.9 | 166 | 16.5 | 197 | 16.5 |
| 41 - 45 YEARS | 0 | 0.0 | 19 | 10.1 | 112 | 11.2 | 131 | 11.0 |
| 46 - 50 YEARS | 0 | 0.0 | 12 | 6.4 | 64 | 6.4 | 76 | 6.4 |
| 51 - 55 YEARS | 0 | 0.0 | 16 | 8.5 | 39 | 3.9 | 55 | 4.6 |
| 56 - 60 YEARS | 0 | 0.0 | 5 | 2.7 | 36 | 3.6 | 41 | 3.4 |
| 61 - 65 YEARS | 0 | 0.0 | 2 | 1.1 | 15 | 1.5 | 17 | 1.4 |
| 66 YEARS AND OVER | 0 | 0.0 | 3 | 1.6 | 9 | 0.9 | 12 | 1.0 |
| UNKNOWN | 0 | - | 2 | - | 13 | - | 15 | - |
| TOTAL | 3 | 100.0 | 191 | 100.0 | 1,017 | 100.0 | 1,211 | 100.0 |

TABLE 2.0.17

2010 POLICE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|------|----------------|-----------|---------|-----------------|----------|-----------|---------|
| 1.0 | ST LOUIS | 252 | 21.3 | 21.0 | WARREN | 12 | 1.0 |
| 2.0 | ST LOUIS CITY | 89 | 7.5 | 23.5 | CALLAWAY | 10 | 0.8 |
| 3.0 | JACKSON | 88 | 7.4 | 23.5 | PULASKI | 10 | 0.8 |
| 4.0 | ST CHARLES | 54 | 4.6 | 25.5 | MARION | 9 | 0.8 |
| 5.5 | BOONE | 33 | 2.8 | 25.5 | SCOTT | 9 | 0.8 |
| 5.5 | COLE | 33 | 2.8 | 29.0 | DUNKLIN | 8 | 0.7 |
| 7.0 | GREENE | 32 | 2.7 | 29.0 | JOHNSON | 8 | 0.7 |
| 8.0 | JASPER | 29 | 2.5 | 29.0 | LINCOLN | 8 | 0.7 |
| 9.0 | JEFFERSON | 27 | 2.3 | 29.0 | RANDOLPH | 8 | 0.7 |
| 10.0 | CLAY | 25 | 2.1 | 29.0 | TANEY | 8 | 0.7 |
| 11.0 | FRANKLIN | 21 | 1.8 | First Quartile | | | |
| 12.0 | BUCHANAN | 19 | 1.6 | Second Quartile | | | |
| 13.5 | CASS | 16 | 1.4 | 35.0 | BATES | 7 | 0.6 |
| 13.5 | PHELPS | 16 | 1.4 | 35.0 | BUTLER | 7 | 0.6 |
| 15.5 | CAPE GIRARDEAU | 15 | 1.3 | 35.0 | CRAWFORD | 7 | 0.6 |
| 15.5 | PLATTE | 15 | 1.3 | 35.0 | MONITEAU | 7 | 0.6 |
| 17.5 | LAFAYETTE | 14 | 1.2 | 35.0 | PEMISCOT | 7 | 0.6 |
| 17.5 | ST FRANCOIS | 14 | 1.2 | 35.0 | RAY | 7 | 0.6 |
| 19.0 | CLINTON | 13 | 1.1 | 35.0 | STONE | 7 | 0.6 |
| 21.0 | CAMDEN | 12 | 1.0 | 41.5 | BARRY | 6 | 0.5 |
| 21.0 | NEWTON | 12 | 1.0 | | | | |

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|-----------------|---------------|-----------|---------|-----------------|------------|-----------|---------|
| 41.5 | DOUGLAS | 6 | 0.5 | 73.0 | PIKE | 3 | 0.3 |
| 41.5 | NEW MADRID | 6 | 0.5 | 84.0 | BARTON | 2 | 0.2 |
| 41.5 | PERRY | 6 | 0.5 | 84.0 | CARROLL | 2 | 0.2 |
| 41.5 | STODDARD | 6 | 0.5 | 84.0 | CHARITON | 2 | 0.2 |
| 41.5 | WEBSTER | 6 | 0.5 | 84.0 | GENTRY | 2 | 0.2 |
| 50.0 | BENTON | 5 | 0.4 | 84.0 | GRUNDY | 2 | 0.2 |
| 50.0 | CEDAR | 5 | 0.4 | 84.0 | HOLT | 2 | 0.2 |
| 50.0 | COOPER | 5 | 0.4 | 84.0 | MADISON | 2 | 0.2 |
| 50.0 | GASCONADE | 5 | 0.4 | 84.0 | OREGON | 2 | 0.2 |
| 50.0 | LEWIS | 5 | 0.4 | 84.0 | RALLS | 2 | 0.2 |
| 50.0 | MC DONALD | 5 | 0.4 | 84.0 | ST CLAIR | 2 | 0.2 |
| 50.0 | MILLER | 5 | 0.4 | 84.0 | WORTH | 2 | 0.2 |
| 50.0 | NODAWAY | 5 | 0.4 | Third Quartile | | | |
| 50.0 | PETTIS | 5 | 0.4 | Fourth Quartile | | | |
| 50.0 | STE GENEVIEVE | 5 | 0.4 | 99.5 | BOLLINGER | 1 | 0.1 |
| 50.0 | SALINE | 5 | 0.4 | 99.5 | CARTER | 1 | 0.1 |
| Second Quartile | | | | 99.5 | CLARK | 1 | 0.1 |
| Third Quartile | | | | 99.5 | DADE | 1 | 0.1 |
| 61.5 | ADAIR | 4 | 0.3 | 99.5 | DALLAS | 1 | 0.1 |
| 61.5 | ATCHISON | 4 | 0.3 | 99.5 | DE KALB | 1 | 0.1 |
| 61.5 | CALDWELL | 4 | 0.3 | 99.5 | HICKORY | 1 | 0.1 |
| 61.5 | CHRISTIAN | 4 | 0.3 | 99.5 | HOWARD | 1 | 0.1 |
| 61.5 | DENT | 4 | 0.3 | 99.5 | IRON | 1 | 0.1 |
| 61.5 | HENRY | 4 | 0.3 | 99.5 | MARIES | 1 | 0.1 |
| 61.5 | LIVINGSTON | 4 | 0.3 | 99.5 | OZARK | 1 | 0.1 |
| 61.5 | MACON | 4 | 0.3 | 99.5 | POLK | 1 | 0.1 |
| 61.5 | OSAGE | 4 | 0.3 | 99.5 | RIPLEY | 1 | 0.1 |
| 61.5 | TEXAS | 4 | 0.3 | 99.5 | SCHUYLER | 1 | 0.1 |
| 61.5 | VERNON | 4 | 0.3 | 99.5 | SCOTLAND | 1 | 0.1 |
| 61.5 | WRIGHT | 4 | 0.3 | 99.5 | SHANNON | 1 | 0.1 |
| 73.0 | ANDREW | 3 | 0.3 | 99.5 | SHELBY | 1 | 0.1 |
| 73.0 | AUDRAIN | 3 | 0.3 | 99.5 | SULLIVAN | 1 | 0.1 |
| 73.0 | DAVISS | 3 | 0.3 | 99.5 | WASHINGTON | 1 | 0.1 |
| 73.0 | HOWELL | 3 | 0.3 | 99.5 | WAYNE | 1 | 0.1 |
| 73.0 | LACLEDE | 3 | 0.3 | 112.5 | HARRISON | 0 | . |
| 73.0 | LAWRENCE | 3 | 0.3 | 112.5 | KNOX | 0 | . |
| 73.0 | MISSISSIPPI | 3 | 0.3 | 112.5 | LINN | 0 | . |
| 73.0 | MONROE | 3 | 0.3 | 112.5 | MERCER | 0 | . |
| 73.0 | MONTGOMERY | 3 | 0.3 | 112.5 | PUTNAM | 0 | . |
| 73.0 | MORGAN | 3 | 0.3 | 112.5 | REYNOLDS | 0 | . |

TABLE 2.0.18

3.0 FIRE VEHICLE INVOLVEMENT

This section presents a series of data displays which identify fire vehicle involvement in Missouri's traffic crash activity. Fire vehicle traffic crashes are defined as any crash in which one or more fire vehicles were directly involved in the incident. Data displays also are provided which describe characteristics of the fire vehicle drivers involved in these traffic crashes.

2010 SUMMARY ANALYSIS

- In 2010, there were 167 traffic crashes involving one or more fire vehicles in the State of Missouri. Zero people were killed and 23 were injured in these crashes.
- In 33.5% of the traffic crashes involving fire vehicles, the fire vehicle was on an emergency run at the time of the incident.
- In 2010, one person was killed or injured in a fire vehicle related crash every 15.9 days in the State of Missouri.
- Of all 2010 crashes involving fire vehicles, the first harmful event in 47.3% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 25.8% of the cases, it involved a motor vehicle striking a parked vehicle. In 21.6% of the cases, the vehicle struck a fixed object.
- Of all 2010 crashes involving fire vehicles, 70.7% occurred in an urban area of the State and 29.3% occurred in a rural area.
- Of all fire vehicle drivers in 2010 traffic crashes, 93.5% were male and 6.5% were female. The average age of the fire vehicle driver was 41.2 years.

2010 FIRE VEHICLE INVOLVED CRASHES

EMERGENCY RUN STATUS

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % | TOTAL NUMBER ¹ | | | FIRE VEHICLE DRIVERS/PASSENGERS ² | | |
|----------------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|---------------------------|---------|--|---|---------|--|
| | | | | | | | | | KILLED | INJURED | | KILLED | INJURED | |
| FIRE VEHICLE ON RUN | 0 | 0.0 | 12 | 52.2 | 44 | 30.6 | 56 | 33.5 | 0 | 16 | | 0 | 4 | |
| FIRE VEHICLE NOT ON RUN | 0 | 0.0 | 11 | 47.8 | 100 | 69.4 | 111 | 66.5 | 0 | 7 | | 0 | 15 | |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 | 0 | 23 | | 0 | 19 | |

¹This statistic indicates the total number of persons killed and injured in a crash where one or more fire vehicles were involved.

²This statistic indicates the number of fire vehicle drivers and passengers killed and injured.

TABLE 3.0.1

2009 and 2010 FIRE VEHICLE INVOLVED CRASH ANALYSIS

| | 2009 | 2010 | RATE OF CHANGE |
|-----------------|------|------|----------------|
| FATAL | 3 | 0 | -100.0 |
| PERSONAL INJURY | 23 | 23 | =0.0 |
| PROPERTY DAMAGE | 152 | 144 | -5.3 |
| TOTAL | 178 | 167 | -6.2 |

TABLE 3.0.2

2010 FIRE VEHICLE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| ANIMAL | 0 | 0.0 | 0 | 0.0 | 2 | 1.4 | 2 | 1.2 |
| BICYCLIST | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| FIXED OBJECT | 0 | 0.0 | 5 | 21.7 | 31 | 21.5 | 36 | 21.6 |
| OTHER OBJECT | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 1 | 0.6 |
| PEDESTRIAN | 0 | 0.0 | 2 | 8.7 | 0 | 0.0 | 2 | 1.2 |
| VEHICLE IN TRANSPORT | 0 | 0.0 | 13 | 56.5 | 66 | 45.8 | 79 | 47.3 |
| VEHICLE ON OTHER ROADWAY | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| PARKED VEHICLE | 0 | 0.0 | 1 | 4.4 | 42 | 29.2 | 43 | 25.8 |
| NON-COLLISION OVERTURN | 0 | 0.0 | 1 | 4.4 | 2 | 1.4 | 3 | 1.8 |
| NON-COLLISION OTHER | 0 | 0.0 | 1 | 4.4 | 0 | 0.0 | 1 | 0.6 |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

TABLE 3.0.3

2010 FIRE VEHICLE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| URBAN | 0 | 0.0 | 10 | 43.5 | 108 | 75.0 | 118 | 70.7 |
| RURAL | 0 | 0.0 | 13 | 56.5 | 36 | 25.0 | 49 | 29.3 |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

TABLE 3.0.4

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| STRAIGHT | 0 | 0.0 | 19 | 82.6 | 114 | 80.3 | 133 | 80.6 |
| CURVE | 0 | 0.0 | 4 | 17.4 | 28 | 19.7 | 32 | 19.4 |
| UNKNOWN | 0 | - | 0 | - | 2 | - | 2 | - |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

TABLE 3.0.5

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-------|--------------------|-------|--------------------|-------|-------|-------|
| LEVEL | 0 | 0.0 | 14 | 60.9 | 97 | 69.3 | 111 | 68.1 |
| HILL | 0 | 0.0 | 8 | 34.8 | 40 | 28.6 | 48 | 39.5 |
| CREST | 0 | 0.0 | 1 | 4.3 | 3 | 2.1 | 4 | 4.4 |
| UNKNOWN | 0 | - | 0 | - | 4 | - | 4 | - |
| TOTAL | 3 | 100.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

TABLE 3.0.6

2010 FIRE VEHICLE INVOLVED CRASHES

ROAD CONDITIONS BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| DRY | 0 | 0.0 | 13 | 56.5 | 112 | 78.3 | 125 | 75.3 |
| WET | 0 | 0.0 | 9 | 39.1 | 14 | 9.8 | 23 | 13.9 |
| SNOW | 0 | 0.0 | 1 | 4.4 | 11 | 7.7 | 12 | 7.2 |
| ICE | 0 | 0.0 | 0 | 0.0 | 5 | 3.5 | 5 | 3.0 |
| STANDING WATER | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| MOVING WATER | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 1 | 0.6 |
| UNKNOWN | 0 | - | 0 | - | 1 | - | 1 | - |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

TABLE 3.0.7

2010 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|-----------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| INTERSTATE | 0 | 0.0 | 1 | 4.4 | 2 | 1.4 | 3 | 1.8 |
| U.S. HIGHWAY | 0 | 0.0 | 2 | 8.7 | 5 | 3.5 | 7 | 4.2 |
| STATE NUMBERED | 0 | 0.0 | 3 | 13.0 | 10 | 6.9 | 13 | 7.8 |
| SINGLE STATE LETTERED | 0 | 0.0 | 3 | 13.0 | 8 | 5.6 | 11 | 6.6 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 1 | 4.4 | 2 | 1.4 | 3 | 1.8 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 1 | 0.6 |
| COUNTY ROAD | 0 | 0.0 | 4 | 17.4 | 13 | 9.0 | 17 | 10.2 |
| CITY STREET | 0 | 0.0 | 9 | 39.1 | 97 | 67.4 | 106 | 63.5 |
| OTHER ¹ | 0 | 0.0 | 0 | 0.0 | 6 | 4.2 | 6 | 3.6 |
| TOTAL | 0 | 0.0 | 23 | 100.0 | 144 | 100.0 | 167 | 100.0 |

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.8

2010 FIRE VEHICLE INVOLVED CRASHES

HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

| | URBAN | | | | | | | RURAL | | | | | | | | |
|-----------------------|-------|-----|-----------------|-------|-----------------|-------|-------|-------|-------|-----|-----------------|-------|-----------------|-------|-------|-------|
| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
| INTERSTATE | 0 | 0.0 | 1 | 10.0 | 1 | 0.9 | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 1 | 2.8 |
| U.S. HIGHWAY | 0 | 0.0 | 1 | 10.0 | 3 | 2.8 | 4 | 3.4 | 0 | 0.0 | 1 | 7.7 | 2 | 5.6 | 3 | 2.0 |
| STATE NUMBERED | 0 | 0.0 | 0 | 0.0 | 4 | 3.7 | 4 | 3.4 | 0 | 0.0 | 3 | 23.1 | 6 | 16.7 | 9 | 18.4 |
| SINGLE STATE LETTERED | 0 | 0.0 | 0 | 0.0 | 1 | 0.9 | 1 | 0.9 | 0 | 0.0 | 3 | 23.1 | 7 | 19.4 | 10 | 20.4 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 7.7 | 2 | 5.6 | 3 | 6.1 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 0.9 | 1 | 0.9 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| COUNTY ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 0.9 | 1 | 0.9 | 0 | 0.0 | 4 | 30.8 | 12 | 33.3 | 16 | 32.7 |
| CITY STREET | 0 | 0.0 | 8 | 80.0 | 92 | 85.2 | 100 | 84.8 | 0 | 0.0 | 1 | 7.7 | 5 | 13.9 | 6 | 12.2 |
| OTHER ¹ | 0 | 0.0 | 0 | 0.0 | 5 | 4.6 | 5 | 4.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 1 | 2.0 |
| TOTAL | 0 | 0.0 | 10 | 100.0 | 108 | 100.0 | 118 | 100.0 | 0 | 0 | 13 | 100.0 | 36 | 100.0 | 49 | 100.0 |

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 3.0.9

2010 FIRE VEHICLE INVOLVED CRASHES**MONTH OF YEAR**

| MONTH | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| JANUARY | 14 | 8.4 |
| FEBRUARY | 11 | 6.6 |
| MARCH | 10 | 6.0 |
| APRIL | 16 | 9.6 |
| MAY | 16 | 9.6 |
| JUNE | 17 | 10.2 |
| JULY | 13 | 7.8 |
| AUGUST | 14 | 8.4 |
| SEPTEMBER | 10 | 6.0 |
| OCTOBER | 17 | 10.2 |
| NOVEMBER | 10 | 6.0 |
| DECEMBER | 19 | 11.4 |
| TOTAL | 167 | 100.0 |

TABLE 3.0.10**2010 FIRE VEHICLE INVOLVED CRASHES****DAY OF WEEK**

| DAY | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| SUNDAY | 17 | 10.2 |
| MONDAY | 18 | 10.8 |
| TUESDAY | 20 | 12.0 |
| WEDNESDAY | 28 | 16.8 |
| THURSDAY | 32 | 19.2 |
| FRIDAY | 34 | 20.4 |
| SATURDAY | 18 | 10.8 |
| TOTAL | 167 | 100.0 |

TABLE 3.0.11

2010 FIRE VEHICLE INVOLVED CRASHES

HOUR OF DAY

| HOUR | FREQUENCY | PERCENT |
|-------------------|------------------|----------------|
| 12:01A - 12:59A | 0 | 0.0 |
| 01:00A - 01:59A | 6 | 3.6 |
| 02:00A - 02:59A | 4 | 2.4 |
| 03:00A - 03:59A | 3 | 1.8 |
| 04:00A - 04:59A | 2 | 1.2 |
| 05:00A - 05:59A | 1 | 0.6 |
| 06:00A - 06:59A | 3 | 1.8 |
| 07:00A - 07:59A | 5 | 3.0 |
| 08:00A - 08:59A | 4 | 2.4 |
| 09:00A - 09:59A | 3 | 1.8 |
| 10:00A - 10:59A | 7 | 4.2 |
| 11:00A - 11:59A | 9 | 5.4 |
| NOON - 12:59P | 11 | 6.6 |
| 01:00P - 01:59P | 18 | 10.8 |
| 02:00P - 02:59P | 7 | 4.2 |
| 03:00P - 03:59P | 15 | 9.0 |
| 04:00P - 04:59P | 13 | 7.8 |
| 05:00P - 05:59P | 12 | 7.2 |
| 06:00P - 06:59P | 13 | 7.8 |
| 07:00P - 07:59P | 4 | 2.4 |
| 08:00P - 08:59P | 4 | 2.4 |
| 09:00P - 09:59P | 12 | 7.2 |
| 10:00P - 10:59P | 8 | 4.8 |
| 11:00P - MIDNIGHT | 3 | 1.8 |
| TOTAL | 167 | 100.0 |

TABLE 3.0.12

2010 MISSOURI FIRE VEHICLE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

| FATAL AND PERSONAL INJURY FIRE VEHICLE CRASHES = 23 | | | | TOTAL FIRE VEHICLE CRASHES = 167 | | |
|--|---------------------------------------|---|-----------------|---------------------------------------|---|------------------|
| | DRIVER OF FIRE VEHICLE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL F & PI | DRIVER OF FIRE VEHICLE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL CRASHES |
| VEHICLE DEFECTS | 4.3 | 0.0 | 4.3 | 1.2 | 0.6 | 1.8 |
| TRAFFIC CONTROL INOPERATIVE / MISSING | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPERLY STOPPED ON ROADWAY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS | 17.4 | 17.4 | 34.8 | 8.4 | 4.8 | 13.2 |
| IMPROPER PASSING | 0.0 | 0.0 | 0.0 | 0.6 | 1.2 | 1.8 |
| VIOLATION OF STOP SIGN | 4.3 | 4.3 | 8.7 | 0.6 | 1.2 | 1.8 |
| WRONG SIDE NOT PASSING | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 | 1.2 |
| FOLLOWING TOO CLOSE | 0.0 | 0.0 | 0.0 | 2.4 | 3.6 | 6.0 |
| IMPROPER SIGNAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPER BACKING | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 |
| IMPROPER TURN | 0.0 | 0.0 | 0.0 | 6.6 | 0.6 | 7.2 |
| IMPROPER LANE USAGE / CHANGE | 8.7 | 0.0 | 8.7 | 3.6 | 2.4 | 6.0 |
| WRONG WAY ONE-WAY STREET | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 |
| IMPROPER START FROM PARK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPERLY PARKED | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 4.2 |
| FAILED TO YIELD | 4.3 | 17.4 | 21.7 | 3.0 | 9.0 | 12.0 |
| DRINKING | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.6 |
| DRUGS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PHYSICAL IMPAIRMENT | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 1.2 |
| INATTENTION | 21.7 | 8.7 | 30.4 | 21.6 | 4.2 | 25.7 |

¹This table identifies the percentage of crashes involving one or more fire vehicles having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his fire vehicle as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2010 Missouri fire vehicle crashes, it was found that a fire vehicle driver was speeding in 17.4% of the crashes. In 17.4% of the crashes another driver was speeding. In 34.8% of the crashes either a fire vehicle driver, another driver, or both drivers were speeding.

TABLE 3.0.13

FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|---------------------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| AUTOMOBILE | 0 | 0.0 | 3 | 12.5 | 5 | 3.5 | 8 | 4.7 |
| SPORT UTILITY VEHICLE | 0 | 0.0 | 2 | 8.3 | 16 | 11.0 | 18 | 10.7 |
| VAN | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| MOTORCYCLE | 0 | 0.0 | 1 | 4.2 | 0 | 0.0 | 1 | 0.6 |
| ALL TERRAIN VEHICLE | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| OTHER TRANSPORT DEVICE | 0 | 0.0 | 2 | 8.3 | 21 | 14.5 | 23 | 13.6 |
| PICK-UP TRUCK | 0 | 0.0 | 5 | 20.8 | 20 | 13.8 | 25 | 14.8 |
| OTHER TRUCK | 0 | 0.0 | 11 | 45.8 | 83 | 57.2 | 94 | 55.6 |
| UNKNOWN | 0 | - | 0 | - | 1 | - | 1 | - |
| TOTAL | 0 | 0.0 | 24 | 100.0 | 146 | 100.0 | 170 | 100.0 |

TABLE 3.0.14

FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| KNOWN DRIVER INVOLVED | 0 | 0.0 | 24 | 100.0 | 145 | 99.3 | 169 | 99.4 |
| UNKNOWN DRIVER INVOLVED | 0 | 0.0 | 0 | 0.0 | 1 | 0.7 | 1 | 0.6 |
| TOTAL | 0 | 0.0 | 24 | 100.0 | 146 | 100.0 | 170 | 100.0 |

TABLE 3.0.15

DRIVERS OF FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|----------|------------|--------------------|--------------|--------------------|--------------|------------|--------------|
| MALE | 0 | 0.0 | 23 | 95.8 | 135 | 93.1 | 158 | 93.5 |
| FEMALE | 0 | 0.0 | 1 | 4.2 | 10 | 6.9 | 11 | 6.5 |
| UNKNOWN | 0 | - | 0 | - | 1 | - | 1 | - |
| TOTAL | 0 | 0.0 | 24 | 100.0 | 146 | 100.0 | 170 | 100.0 |

TABLE 3.0.16

DRIVERS OF FIRE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

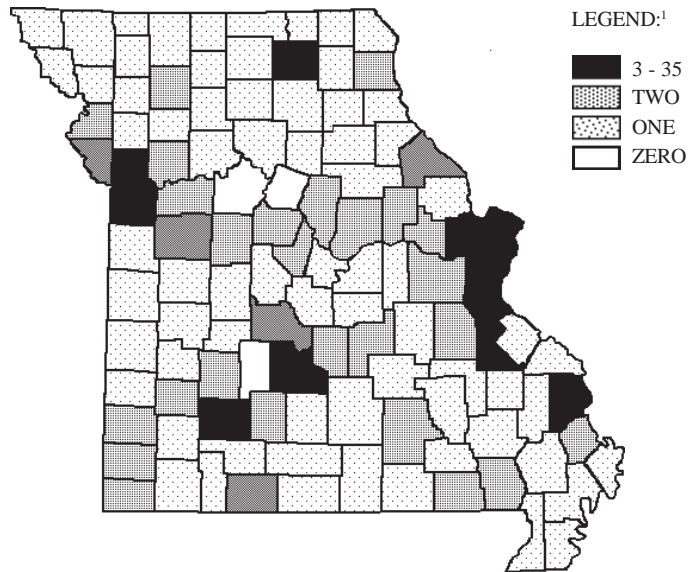
AGE OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------------|----------|------------|--------------------|--------------|--------------------|--------------|------------|--------------|
| AVERAGE AGE OF DRIVER | - | - | 40.3 | - | 41.4 | - | 41.2 | - |
| 15 - 20 YEARS | 0 | 0.0 | 1 | 4.2 | 3 | 2.1 | 4 | 2.4 |
| 21 - 25 YEARS | 0 | 0.0 | 0 | 0.0 | 10 | 6.9 | 10 | 5.9 |
| 26 - 30 YEARS | 0 | 0.0 | 7 | 29.2 | 16 | 11.0 | 23 | 13.6 |
| 31 - 35 YEARS | 0 | 0.0 | 5 | 20.8 | 15 | 10.3 | 20 | 11.8 |
| 36 - 40 YEARS | 0 | 0.0 | 1 | 4.2 | 27 | 18.6 | 28 | 16.6 |
| 41 - 45 YEARS | 0 | 0.0 | 1 | 4.2 | 19 | 13.1 | 20 | 11.8 |
| 46 - 50 YEARS | 0 | 0.0 | 1 | 4.2 | 21 | 14.5 | 22 | 13.0 |
| 51 - 55 YEARS | 0 | 0.0 | 5 | 20.8 | 19 | 13.1 | 24 | 14.2 |
| 56 - 60 YEARS | 0 | 0.0 | 0 | 0.0 | 8 | 5.5 | 8 | 4.7 |
| 61 - 65 YEARS | 0 | 0.0 | 1 | 4.2 | 4 | 2.8 | 5 | 3.0 |
| 66 YEARS AND OVER | 0 | 0.0 | 2 | 8.3 | 3 | 2.1 | 5 | 3.0 |
| UNKNOWN | 0 | - | 0 | - | 1 | - | 1 | - |
| TOTAL | 0 | 0.0 | 24 | 100.0 | 146 | 100.0 | 170 | 100.0 |

TABLE 3.0.17

2010 FIRE VEHICLE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|-----------------|----------------|-----------|---------|-----------------|-----------|-----------|---------|
| 1.0 | ST LOUIS CITY | 35 | 21.0 | 14.0 | PLATTE | 2 | 1.2 |
| 2.0 | ST LOUIS | 32 | 19.2 | 14.0 | TANEY | 2 | 1.2 |
| 3.0 | JACKSON | 25 | 15.0 | Second Quartile | | | |
| 4.0 | JEFFERSON | 7 | 4.2 | Third Quartile | | | |
| 6.0 | CLAY | 6 | 3.6 | 29.5 | BOONE | 1 | 0.6 |
| 6.0 | GREENE | 6 | 3.6 | 29.5 | BUCHANAN | 1 | 0.6 |
| 6.0 | ST CHARLES | 6 | 3.6 | 29.5 | BUTLER | 1 | 0.6 |
| 8.5 | CAPE GIRARDEAU | 4 | 2.4 | 29.5 | CALLAWAY | 1 | 0.6 |
| 8.5 | LACLEDE | 4 | 2.4 | 29.5 | COOPER | 1 | 0.6 |
| 10.5 | ADAIR | 3 | 1.8 | 29.5 | DADE | 1 | 0.6 |
| 10.5 | ST FRANCOIS | 3 | 1.8 | 29.5 | DAVISS | 1 | 0.6 |
| First Quartile | | | | 29.5 | FRANKLIN | 1 | 0.6 |
| Second Quartile | | | | 29.5 | JASPER | 1 | 0.6 |
| 14.0 | CAMDEN | 2 | 1.2 | 29.5 | LAFAYETTE | 1 | 0.6 |
| 14.0 | JOHNSON | 2 | 1.2 | 29.5 | LEWIS | 1 | 0.6 |
| 14.0 | PIKE | 2 | 1.2 | 29.5 | MC DONALD | 1 | 0.6 |

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|-----------------|------------|-----------|---------|------|---------------|-----------|---------|
| 29.5 | MONITEAU | 1 | 0.6 | 79.0 | HENRY | 0 | 0.0 |
| 29.5 | MONTGOMERY | 1 | 0.6 | 79.0 | HICKORY | 0 | 0.0 |
| 29.5 | NEWTON | 1 | 0.6 | 79.0 | HOLT | 0 | 0.0 |
| 29.5 | PETTIS | 1 | 0.6 | 79.0 | HOWARD | 0 | 0.0 |
| 29.5 | PHELPS | 1 | 0.6 | 79.0 | HOWELL | 0 | 0.0 |
| 29.5 | POLK | 1 | 0.6 | 79.0 | IRON | 0 | 0.0 |
| 29.5 | PULASKI | 1 | 0.6 | 79.0 | KNOX | 0 | 0.0 |
| 29.5 | RAY | 1 | 0.6 | 79.0 | LAWRENCE | 0 | 0.0 |
| 29.5 | RIPLEY | 1 | 0.6 | 79.0 | LINCOLN | 0 | 0.0 |
| 29.5 | SCOTT | 1 | 0.6 | 79.0 | LINN | 0 | 0.0 |
| 29.5 | SHANNON | 1 | 0.6 | 79.0 | LIVINGSTON | 0 | 0.0 |
| 29.5 | WARREN | 1 | 0.6 | 79.0 | MACON | 0 | 0.0 |
| 29.5 | WASHINGTON | 1 | 0.6 | 79.0 | MADISON | 0 | 0.0 |
| 29.5 | WEBSTER | 1 | 0.6 | 79.0 | MARIES | 0 | 0.0 |
| Third Quartile | | | | 79.0 | MARION | 0 | 0.0 |
| Fourth Quartile | | | | 79.0 | MERCER | 0 | 0.0 |
| 79.0 | ANDREW | 0 | 0.0 | 79.0 | MILLER | 0 | 0.0 |
| 79.0 | ATCHISON | 0 | 0.0 | 79.0 | MISSISSIPPI | 0 | 0.0 |
| 79.0 | AUDRAIN | 0 | 0.0 | 79.0 | MONROE | 0 | 0.0 |
| 79.0 | BARRY | 0 | 0.0 | 79.0 | MORGAN | 0 | 0.0 |
| 79.0 | BARTON | 0 | 0.0 | 79.0 | NEW MADRID | 0 | 0.0 |
| 79.0 | BATES | 0 | 0.0 | 79.0 | NODAWAY | 0 | 0.0 |
| 79.0 | BENTON | 0 | 0.0 | 79.0 | OREGON | 0 | 0.0 |
| 79.0 | BOLLINGER | 0 | 0.0 | 79.0 | OSAGE | 0 | 0.0 |
| 79.0 | CALDWELL | 0 | 0.0 | 79.0 | OZARK | 0 | 0.0 |
| 79.0 | CARROLL | 0 | 0.0 | 79.0 | PEMISCOT | 0 | 0.0 |
| 79.0 | CARTER | 0 | 0.0 | 79.0 | PERRY | 0 | 0.0 |
| 79.0 | CASS | 0 | 0.0 | 79.0 | PUTNAM | 0 | 0.0 |
| 79.0 | CEDAR | 0 | 0.0 | 79.0 | RALLS | 0 | 0.0 |
| 79.0 | CHARITON | 0 | 0.0 | 79.0 | RANDOLPH | 0 | 0.0 |
| 79.0 | CHRISTIAN | 0 | 0.0 | 79.0 | REYNOLDS | 0 | 0.0 |
| 79.0 | CLARK | 0 | 0.0 | 79.0 | ST CLAIR | 0 | 0.0 |
| 79.0 | CLINTON | 0 | 0.0 | 79.0 | STE GENEVIEVE | 0 | 0.0 |
| 79.0 | COLE | 0 | 0.0 | 79.0 | SALINE | 0 | 0.0 |
| 79.0 | CRAWFORD | 0 | 0.0 | 79.0 | SCHUYLER | 0 | 0.0 |
| 79.0 | DALLAS | 0 | 0.0 | 79.0 | SCOTLAND | 0 | 0.0 |
| 79.0 | DE KALB | 0 | 0.0 | 79.0 | SHELBY | 0 | 0.0 |
| 79.0 | DENT | 0 | 0.0 | 79.0 | STODDARD | 0 | 0.0 |
| 79.0 | DOUGLAS | 0 | 0.0 | 79.0 | STONE | 0 | 0.0 |
| 79.0 | DUNKLIN | 0 | 0.0 | 79.0 | SULLIVAN | 0 | 0.0 |
| 79.0 | GASCONADE | 0 | 0.0 | 79.0 | TEXAS | 0 | 0.0 |
| 79.0 | GENTRY | 0 | 0.0 | 79.0 | VERNON | 0 | 0.0 |
| 79.0 | GRUNDY | 0 | 0.0 | 79.0 | WAYNE | 0 | 0.0 |
| 79.0 | HARRISON | 0 | 0.0 | 79.0 | WORTH | 0 | 0.0 |
| | | | | 79.0 | WRIGHT | 0 | 0.0 |

TABLE 3.0.18

4.0 AMBULANCE INVOLVEMENT

This section presents a series of data displays which identify ambulance involvement in Missouri's traffic crash activity. Ambulance traffic crashes are defined as any crash in which one or more ambulances were directly involved in the incident. Data displays also are provided which describe characteristics of the ambulance drivers involved in these traffic crashes.

2010 SUMMARY ANALYSIS

- In 2010, there were 173 traffic crashes involving one or more ambulances in the State of Missouri. Zero people were killed and 60 were injured in these crashes.
- In 30.6% of the traffic crashes involving ambulances, the ambulance was on an emergency run at the time of the incident.
- Of all 2010 crashes involving ambulances, the first harmful event in 68.2% of the cases involved one motor vehicle in transport striking another motor vehicle in transport. In 8.7% of the cases a motor vehicle struck an animal, and in 12.7% of the cases, a motor vehicle struck a fixed object.
- Of all 2010 crashes involving ambulances, 72.3% occurred in an urban area of the State and 27.7% occurred in a rural area.
- Of all ambulance drivers involved in 2010 traffic crashes, 69.1% were male and 30.9% were female. The average age of the ambulance driver was 35.6 years.

2010 AMBULANCE INVOLVED CRASHES

EMERGENCY RUN STATUS

| | FATAL | PERSONAL | | PROPERTY | | TOTAL | % | TOTAL NUMBER¹ | | AMBULANCE | | |
|-------------------------|-------|----------|--------|----------|--------|-------|-----|---------------|---------|---------------------|--------|---------|
| | | % | INJURY | % | DAMAGE | | | KILLED | INJURED | DRIVERS/PASSENGERS² | KILLED | INJURED |
| AMBULANCE ON RUN | 0 | 0.0 | 19 | 40.4 | 34 | 27.0 | 53 | 30.6 | 0 | 23 | 0 | 25 |
| AMBULANCE NOT ON RUN | 0 | 0.0 | 28 | 59.6 | 92 | 73.0 | 120 | 69.4 | 0 | 37 | 0 | 20 |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 | 0 | 60 | 0 | 45 |

¹This statistic indicates the total number of persons killed and injured in a crash where one or more ambulances were involved.

²This statistic indicates the number of ambulance drivers and passengers killed and injured.

TABLE 4.0.1

2009 and 2010 AMBULANCE INVOLVED CRASH ANALYSIS

| | 2009 | 2010 | RATE OF CHANGE |
|-----------------|------|------|----------------|
| FATAL | 2 | 0 | -100.0 |
| PERSONAL INJURY | 45 | 47 | +4.4 |
| PROPERTY DAMAGE | 121 | 126 | +4.1 |
| TOTAL | 168 | 173 | +3.0 |

TABLE 4.0.2

2010 AMBULANCE INVOLVED CRASHES

CRASH TYPE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| ANIMAL | 0 | 0.0 | 1 | 2.1 | 14 | 11.1 | 15 | 8.7 |
| BICYCLIST | 0 | 0.0 | 2 | 4.3 | 0 | 0.0 | 2 | 1.2 |
| FIXED OBJECT | 0 | 0.0 | 6 | 12.8 | 16 | 12.7 | 22 | 12.7 |
| OTHER OBJECT | 0 | 0.0 | 0 | 0.0 | 1 | 0.8 | 1 | 0.6 |
| PEDESTRIAN | 0 | 0.0 | 2 | 4.3 | 0 | 0.0 | 2 | 1.2 |
| VEHICLE IN TRANSPORT | 0 | 0.0 | 34 | 72.3 | 84 | 66.7 | 118 | 68.2 |
| PARKED VEHICLE | 0 | 0.0 | 0 | 0.0 | 11 | 8.7 | 11 | 6.4 |
| NON-COLLISION OTHER | 0 | 0.0 | 2 | 4.3 | 0 | 0.0 | 2 | 1.2 |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

TABLE 4.0.3

2010 AMBULANCE INVOLVED CRASHES

AREA CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| URBAN | 0 | 0.0 | 37 | 78.7 | 88 | 69.8 | 125 | 72.3 |
| RURAL | 0 | 0.0 | 10 | 21.3 | 38 | 30.2 | 48 | 27.7 |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

TABLE 4.0.4

2010 AMBULANCE INVOLVED CRASHES

ROAD CURVATURE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| STRAIGHT | 0 | 0.0 | 42 | 89.4 | 112 | 88.9 | 154 | 89.0 |
| CURVE | 0 | 0.0 | 5 | 10.6 | 14 | 11.1 | 19 | 11.0 |
| UNKNOWN | 0 | - | 0 | - | 0 | - | 0 | - |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

TABLE 4.0.5

2010 AMBULANCE INVOLVED CRASHES

ROAD INCLINE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| LEVEL | 0 | 0.0 | 35 | 74.5 | 94 | 75.8 | 129 | 75.4 |
| HILL | 0 | 0.0 | 11 | 23.4 | 27 | 21.8 | 38 | 22.2 |
| CREST | 0 | 0.0 | 1 | 2.1 | 3 | 2.4 | 4 | 2.3 |
| UNKNOWN | 0 | - | 0 | - | 2 | - | 2 | - |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

TABLE 4.0.6

2010 AMBULANCE INVOLVED CRASHES
ROAD CONDITIONS BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| DRY | 0 | 0.0 | 33 | 70.2 | 99 | 79.8 | 132 | 77.2 |
| WET | 0 | 0.0 | 10 | 21.3 | 15 | 12.1 | 25 | 14.6 |
| SNOW | 0 | 0.0 | 2 | 4.3 | 7 | 5.7 | 9 | 5.3 |
| ICE | 0 | 0.0 | 1 | 2.1 | 2 | 1.6 | 3 | 1.8 |
| SLUSH | 0 | 0.0 | 1 | 2.1 | 1 | 0.8 | 2 | 1.2 |
| UNKNOWN | 0 | -- | 0 | -- | 2 | -- | 2 | -- |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

TABLE 4.0.7

2010 AMBULANCE INVOLVED CRASHES
HIGHWAY CLASSIFICATION BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|-----------------------|--------------|----------|----------------------------|----------|----------------------------|----------|--------------|----------|
| INTERSTATE | 0 | 0.0 | 3 | 6.4 | 12 | 9.5 | 15 | 8.7 |
| U.S. HIGHWAY | 0 | 0.0 | 5 | 10.6 | 11 | 8.7 | 16 | 9.3 |
| STATE NUMBERED | 0 | 0.0 | 6 | 12.8 | 20 | 15.9 | 26 | 15.0 |
| SINGLE STATE LETTERED | 0 | 0.0 | 2 | 4.3 | 7 | 5.6 | 9 | 5.2 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 0 | 0.0 | 2 | 1.6 | 2 | 1.2 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 0.8 | 1 | 0.6 |
| COUNTY ROAD | 0 | 0.0 | 0 | 0.0 | 3 | 2.4 | 3 | 1.7 |
| CITY STREET | 0 | 0.0 | 30 | 63.8 | 65 | 51.6 | 95 | 54.9 |
| OTHER ¹ | 0 | 0.0 | 1 | 2.1 | 5 | 4.0 | 6 | 3.5 |
| TOTAL | 0 | 0.0 | 47 | 100.0 | 126 | 100.0 | 173 | 100.0 |

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.8

2010 AMBULANCE INVOLVED CRASHES
HIGHWAY CLASSIFICATION BY AREA CLASSIFICATION AND CRASH SEVERITY

| | URBAN | | | | | | | | RURAL | | | | | | | |
|-----------------------|-------|-----|-----------------|-------|-----------------|-------|-------|-------|-------|-----|-----------------|-------|-----------------|-------|-------|-------|
| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
| INTERSTATE | 0 | 0.0 | 2 | 5.4 | 7 | 8.0 | 9 | 7.2 | 0 | 0.0 | 1 | 10.0 | 5 | 13.2 | 6 | 12.5 |
| U.S. HIGHWAY | 0 | 0.0 | 3 | 8.1 | 4 | 4.6 | 7 | 5.6 | 0 | 0.0 | 2 | 20.0 | 7 | 18.4 | 9 | 18.8 |
| STATE NUMBERED | 0 | 0.0 | 2 | 5.4 | 6 | 6.8 | 8 | 6.4 | 0 | 0.0 | 4 | 40.0 | 14 | 36.8 | 18 | 37.5 |
| SINGLE STATE LETTERED | 0 | 0.0 | 0 | 0.0 | 3 | 3.4 | 3 | 2.4 | 0 | 0.0 | 2 | 20.0 | 4 | 10.5 | 6 | 12.5 |
| DOUBLE STATE LETTERED | 0 | 0.0 | 0 | 0.0 | 1 | 1.1 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 2.6 | 1 | 2.1 |
| OUTER ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 1.1 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| COUNTY ROAD | 0 | 0.0 | 0 | 0.0 | 1 | 1.1 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 2 | 5.3 | 2 | 4.2 |
| CITY STREET | 0 | 0.0 | 29 | 78.4 | 61 | 69.3 | 90 | 72.0 | 0 | 0.0 | 1 | 10.0 | 4 | 10.5 | 5 | 10.4 |
| OTHER ¹ | 0 | 0.0 | 1 | 2.7 | 4 | 4.6 | 5 | 4.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.6 | 1 | 2.1 |
| TOTAL | 0 | 0.0 | 37 | 100.0 | 88 | 100.0 | 125 | 100.0 | 0 | 0.0 | 10 | 100.0 | 38 | 100.0 | 48 | 100.0 |

¹ "Other" includes types of roads that are maintained by the State as well as by local jurisdictions.

TABLE 4.0.9

2010 AMBULANCE INVOLVED CRASHES**MONTH OF YEAR**

| MONTH | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| JANUARY | 12 | 6.9 |
| FEBRUARY | 14 | 8.1 |
| MARCH | 9 | 5.2 |
| APRIL | 20 | 11.6 |
| MAY | 17 | 9.8 |
| JUNE | 7 | 4.1 |
| JULY | 16 | 9.3 |
| AUGUST | 18 | 10.4 |
| SEPTEMBER | 15 | 8.7 |
| OCTOBER | 12 | 6.9 |
| NOVEMBER | 19 | 11.0 |
| DECEMBER | 14 | 8.1 |
| TOTAL | 173 | 100.0 |

TABLE 4.0.10**2010 AMBULANCE INVOLVED CRASHES****DAY OF WEEK**

| DAY | FREQUENCY | PERCENT |
|--------------|------------------|----------------|
| SUNDAY | 18 | 10.4 |
| MONDAY | 21 | 12.1 |
| TUESDAY | 30 | 17.3 |
| WEDNESDAY | 16 | 9.3 |
| THURSDAY | 26 | 15.0 |
| FRIDAY | 37 | 21.4 |
| SATURDAY | 25 | 14.5 |
| TOTAL | 173 | 100.0 |

TABLE 4.0.11

2010 AMBULANCE INVOLVED CRASHES

HOUR OF DAY

| HOURL | FREQUENCY | PERCENT |
|-------------------|-----------|---------|
| 12:01A - 12:59A | 4 | 2.3 |
| 01:00A - 01:59A | 7 | 4.1 |
| 02:00A - 02:59A | 6 | 3.5 |
| 03:00A - 03:59A | 4 | 2.3 |
| 04:00A - 04:59A | 1 | 0.6 |
| 05:00A - 05:59A | 1 | 0.6 |
| 06:00A - 06:59A | 3 | 1.7 |
| 07:00A - 07:59A | 4 | 2.3 |
| 08:00A - 08:59A | 9 | 5.2 |
| 09:00A - 09:59A | 9 | 5.2 |
| 10:00A - 10:59A | 9 | 5.2 |
| 11:00A - 11:59A | 8 | 4.6 |
| NOON - 12:59P | 10 | 5.8 |
| 01:00P - 01:59P | 10 | 5.8 |
| 02:00P - 02:59P | 12 | 6.9 |
| 03:00P - 03:59P | 13 | 7.5 |
| 04:00P - 04:59P | 11 | 6.4 |
| 05:00P - 05:59P | 13 | 7.5 |
| 06:00P - 06:59P | 12 | 6.9 |
| 07:00P - 07:59P | 9 | 5.2 |
| 08:00P - 08:59P | 2 | 1.2 |
| 09:00P - 09:59P | 7 | 4.1 |
| 10:00P - 10:59P | 6 | 3.5 |
| 11:00P - MIDNIGHT | 3 | 1.7 |
| UNKNOWN | 0 | -- |
| TOTAL | 173 | 100.0 |

TABLE 4.0.12

2010 MISSOURI AMBULANCE CRASHES

TYPE OF CIRCUMSTANCE INVOLVED BY CRASH SEVERITY AND PERSON CLASSIFICATION¹

| FATAL AND PERSONAL INJURY AMBULANCE CRASHES = 47 | | | | TOTAL AMBULANCE CRASHES = 173 | | |
|---|------------------------------------|---|-----------------|------------------------------------|---|------------------|
| | DRIVER OF AMBULANCE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL F & PI | DRIVER OF AMBULANCE/ VEHICLE | OTHER DRIVER/ VEHICLE/ PEDESTRIAN | TOTAL CRASHES |
| VEHICLE DEFECTS | 6.4 | 2.1 | 8.5 | 1.7 | 2.3 | 4.0 |
| TRAFFIC CONTROL INOPERATIVE / MISSING | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPERLY STOPPED ON ROADWAY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| EXCEEDING SPEED LIMIT / TOO FAST FOR CONDITIONS | 8.5 | 8.5 | 17.0 | 2.3 | 5.8 | 8.1 |
| IMPROPER PASSING | 0.0 | 0.0 | 0.0 | 1.2 | 0.6 | 1.7 |
| VIOLATION OF STOP SIGN | 4.3 | 2.1 | 6.4 | 1.2 | 1.7 | 2.9 |
| WRONG SIDE NOT PASSING | 0.0 | 0.0 | 0.0 | 0.6 | 1.2 | 1.7 |
| FOLLOWING TOO CLOSE | 4.3 | 4.3 | 8.5 | 4.0 | 4.0 | 7.5 |
| IMPROPER SIGNAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPER BACKING | 0.0 | 0.0 | 0.0 | 4.0 | 0.6 | 4.6 |
| IMPROPER TURN | 0.0 | 0.0 | 0.0 | 2.3 | 1.7 | 3.5 |
| IMPROPER LANE USAGE / CHANGE | 4.3 | 2.1 | 6.4 | 4.0 | 4.0 | 7.5 |
| WRONG WAY ONE-WAY STREET | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| IMPROPER START FROM PARK | 0.0 | 2.1 | 2.1 | 0.0 | 0.6 | 0.6 |
| IMPROPERLY PARKED | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| FAILED TO YIELD | 10.6 | 14.9 | 25.5 | 3.5 | 12.7 | 16.2 |
| DRINKING | 4.3 | 2.1 | 6.4 | 1.2 | 1.2 | 2.3 |
| DRUGS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PHYSICAL IMPAIRMENT | 4.3 | 0.0 | 4.3 | 2.9 | 0.6 | 3.5 |
| INATTENTION | 17.0 | 17.0 | 29.8 | 16.2 | 12.7 | 27.2 |

¹This table identifies the percentage of crashes involving one or more ambulances having a specific type of circumstance which contributed to the cause of the crash. This table further defines the percentage of crashes where the contributing circumstance was associated with the driver or his ambulance as well as those attributed to other persons and vehicles in the crash. For instance, when examining speed involvement in 2010 Missouri ambulance crashes, it was found that an ambulance driver was speeding in 8.5% of the crashes. In 8.5% of the crashes another driver was speeding. In 17.0% of the crashes either an ambulance driver, another driver, or both drivers were speeding.

TABLE 4.0.13

AMBULANCE VEHICLES INVOLVED IN 2010 MISSOURI CRASHES

TYPE OF VEHICLE BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|---------------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| AUTOMOBILE | 0 | 0.0 | 10 | 20.0 | 6 | 4.7 | 16 | 8.9 |
| SPORT UTILITY VEHICLE | 0 | 0.0 | 3 | 6.0 | 2 | 1.6 | 5 | 2.8 |
| VAN | 0 | 0.0 | 6 | 12.0 | 28 | 21.7 | 34 | 19.0 |
| MOTORCYCLE | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| BUS | 0 | 0.0 | 0 | 0.0 | 1 | 0.8 | 1 | 0.6 |
| MOPED | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| ATV | 0 | 0.0 | 1 | 2.0 | 0 | 0.0 | 1 | 0.6 |
| BICYCLE | 0 | 0.0 | 2 | 4.0 | 0 | 0.0 | 2 | 1.1 |
| OTHER TRANSPORT DEVICE | 0 | 0.0 | 7 | 14.0 | 35 | 27.1 | 42 | 23.5 |
| PICK-UP TRUCK | 0 | 0.0 | 4 | 8.0 | 4 | 3.1 | 8 | 4.5 |
| OTHER TRUCK | 0 | 0.0 | 17 | 34.0 | 53 | 41.1 | 70 | 39.1 |
| UNKNOWN | 0 | - | 0 | - | 1 | - | 1 | - |
| TOTAL | 0 | 0.0 | 50 | 100.0 | 130 | 100.0 | 180 | 100.0 |

TABLE 4.0.14

AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

DRIVER INVOLVEMENT BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| KNOWN DRIVER INVOLVED | 0 | 0.0 | 49 | 98.0 | 126 | 96.9 | 175 | 97.2 |
| UNKNOWN DRIVER INVOLVED | 0 | 0.0 | 1 | 2.0 | 4 | 3.1 | 5 | 2.8 |
| TOTAL | 0 | 0.0 | 50 | 100.0 | 130 | 100.0 | 180 | 100.0 |

TABLE 4.0.15

DRIVERS OF AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

SEX OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|--------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| MALE | 0 | 0.0 | 30 | 61.2 | 91 | 72.2 | 121 | 69.1 |
| FEMALE | 0 | 0.0 | 19 | 38.8 | 35 | 27.8 | 54 | 30.9 |
| UNKNOWN | 0 | - | 1 | - | 4 | - | 5 | - |
| TOTAL | 0 | 0.0 | 50 | 100.0 | 130 | 100.0 | 180 | 100.0 |

TABLE 4.0.16

DRIVERS OF AMBULANCES INVOLVED IN 2010 MISSOURI CRASHES

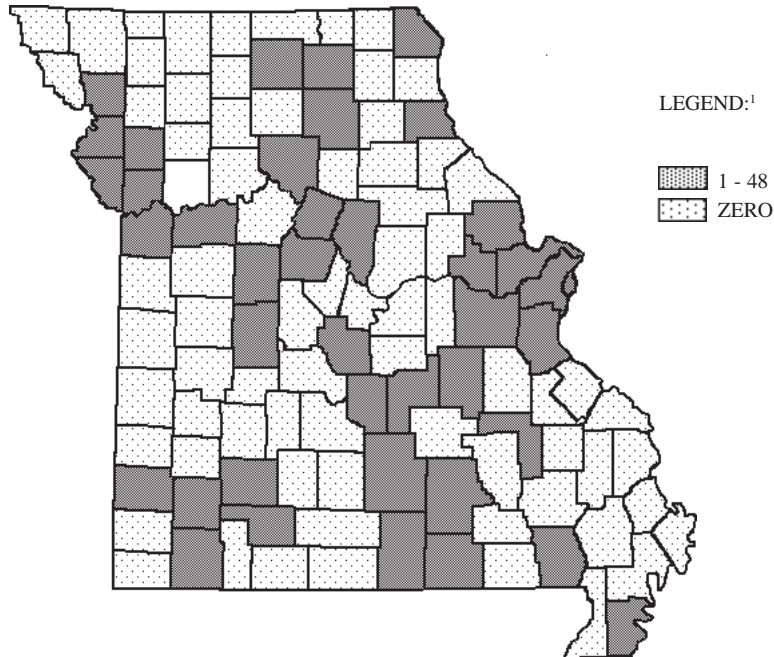
AGE OF DRIVER BY CRASH SEVERITY

| | FATAL | % | PERSONAL INJURY | % | PROPERTY DAMAGE | % | TOTAL | % |
|----------------------------------|-------|-----|--------------------|-------|--------------------|-------|-------|-------|
| AVERAGE AGE OF DRIVER | - | - | 32.8 | - | 36.8 | - | 35.6 | - |
| 14 YEARS AND UNDER | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 15 - 20 YEARS | 0 | 0.0 | 4 | 8.2 | 2 | 1.6 | 6 | 3.5 |
| 21 - 25 YEARS | 0 | 0.0 | 10 | 20.4 | 13 | 10.4 | 23 | 13.2 |
| 26 - 30 YEARS | 0 | 0.0 | 13 | 26.5 | 38 | 30.4 | 51 | 29.3 |
| 31 - 35 YEARS | 0 | 0.0 | 7 | 14.3 | 17 | 13.6 | 24 | 13.8 |
| 36 - 40 YEARS | 0 | 0.0 | 3 | 6.1 | 17 | 13.6 | 20 | 11.5 |
| 41 - 45 YEARS | 0 | 0.0 | 3 | 6.1 | 9 | 7.2 | 12 | 6.9 |
| 46 - 50 YEARS | 0 | 0.0 | 5 | 10.2 | 14 | 11.2 | 19 | 10.9 |
| 51 - 55 YEARS | 0 | 0.0 | 2 | 4.1 | 6 | 4.8 | 8 | 4.6 |
| 56 - 60 YEARS | 0 | 0.0 | 2 | 4.1 | 6 | 4.8 | 8 | 4.6 |
| 61 - 65 YEARS | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 66 YEARS AND OVER | 0 | 0.0 | 0 | 0.0 | 3 | 2.4 | 3 | 1.7 |
| UNKNOWN | 0 | - | 1 | - | 5 | - | 6 | - |
| TOTAL | 0 | 0.0 | 50 | 100.0 | 130 | 100.0 | 180 | 100.0 |

TABLE 4.0.17

2010 AMBULANCE INVOLVED CRASHES

COUNTY QUARTILE ANALYSIS



¹ LEGEND CATEGORIES ARE BASED ON QUARTILES OF COUNTIES.

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|------|---------------|-----------|---------|------|-----------|-----------|---------|
| 1.0 | ST LOUIS CITY | 48 | 27.7 | 30.5 | ADAIR | 1 | 0.6 |
| 2.0 | ST LOUIS | 24 | 13.9 | 30.5 | ANDREW | 1 | 0.6 |
| 3.0 | JACKSON | 19 | 11.0 | 30.5 | BUCHANAN | 1 | 0.6 |
| 4.0 | GREENE | 12 | 6.9 | 30.5 | BUTLER | 1 | 0.6 |
| 5.0 | ST CHARLES | 9 | 5.2 | 30.5 | CHARITON | 1 | 0.6 |
| 6.5 | BOONE | 5 | 2.9 | 30.5 | CLARK | 1 | 0.6 |
| 6.5 | JEFFERSON | 5 | 2.9 | 30.5 | CLINTON | 1 | 0.6 |
| 10.0 | BENTON | 3 | 1.7 | 30.5 | COOPER | 1 | 0.6 |
| 10.0 | CHRISTIAN | 3 | 1.7 | 30.5 | FRANKLIN | 1 | 0.6 |
| 10.0 | CLAY | 3 | 1.7 | 30.5 | HOWARD | 1 | 0.6 |
| 10.0 | PETTIS | 3 | 1.7 | 30.5 | IRON | 1 | 0.6 |
| 10.0 | PHELPS | 3 | 1.7 | 30.5 | LAFAYETTE | 1 | 0.6 |
| 16.0 | BARRY | 2 | 1.2 | 30.5 | LAWRENCE | 1 | 0.6 |
| 16.0 | CRAWFORD | 2 | 1.2 | 30.5 | LINCOLN | 1 | 0.6 |
| 16.0 | HOWELL | 2 | 1.2 | 30.5 | MARION | 1 | 0.6 |
| 16.0 | JASPER | 2 | 1.2 | 30.5 | OREGON | 1 | 0.6 |
| 16.0 | MACON | 2 | 1.2 | 30.5 | PEMISCOT | 1 | 0.6 |
| 16.0 | MILLER | 2 | 1.2 | 30.5 | PULASKI | 1 | 0.6 |
| 16.0 | PLATTE | 2 | 1.2 | | | | |

| RANK | COUNTY | FREQUENCY | PERCENT | RANK | COUNTY | FREQUENCY | PERCENT |
|-----------------|----------------|-----------|---------|------|---------------|-----------|---------|
| 30.5 | SHANNON | 1 | 0.6 | 78.5 | LIVINGSTON | 0 | 0.0 |
| 30.5 | SULLIVAN | 1 | 0.6 | 78.5 | MC DONALD | 0 | 0.0 |
| 30.5 | TEXAS | 1 | 0.6 | 78.5 | MADISON | 0 | 0.0 |
| 30.5 | WARREN | 1 | 0.6 | 78.5 | MARIES | 0 | 0.0 |
| First Quartile | | | | 78.5 | MERCER | 0 | 0.0 |
| Second Quartile | | | | 78.5 | MISSISSIPPI | 0 | 0.0 |
| 78.5 | ATCHISON | 0 | 0.0 | 78.5 | MONITEAU | 0 | 0.0 |
| 78.5 | AUDRAIN | 0 | 0.0 | 78.5 | MONROE | 0 | 0.0 |
| 78.5 | BARTON | 0 | 0.0 | 78.5 | MONTGOMERY | 0 | 0.0 |
| 78.5 | BATES | 0 | 0.0 | 78.5 | MORGAN | 0 | 0.0 |
| 78.5 | BOLLINGER | 0 | 0.0 | 78.5 | NEW MADRID | 0 | 0.0 |
| 78.5 | CALDWELL | 0 | 0.0 | 78.5 | NEWTON | 0 | 0.0 |
| 78.5 | CALLAWAY | 0 | 0.0 | 78.5 | NODAWAY | 0 | 0.0 |
| 78.5 | CAMDEN | 0 | 0.0 | 78.5 | OSAGE | 0 | 0.0 |
| 78.5 | CAPE GIRARDEAU | 0 | 0.0 | 78.5 | OZARK | 0 | 0.0 |
| 78.5 | CARROLL | 0 | 0.0 | 78.5 | PERRY | 0 | 0.0 |
| 78.5 | CARTER | 0 | 0.0 | 78.5 | PIKE | 0 | 0.0 |
| 78.5 | CASS | 0 | 0.0 | 78.5 | POLK | 0 | 0.0 |
| 78.5 | CEDAR | 0 | 0.0 | 78.5 | PUTNAM | 0 | 0.0 |
| 78.5 | COLE | 0 | 0.0 | 78.5 | RALLS | 0 | 0.0 |
| 78.5 | DADE | 0 | 0.0 | 78.5 | RANDOLPH | 0 | 0.0 |
| 78.5 | DALLAS | 0 | 0.0 | 78.5 | RAY | 0 | 0.0 |
| 78.5 | DAVIESS | 0 | 0.0 | 78.5 | REYNOLDS | 0 | 0.0 |
| 78.5 | DE KALB | 0 | 0.0 | 78.5 | RIPLEY | 0 | 0.0 |
| 78.5 | DENT | 0 | 0.0 | 78.5 | ST CLAIR | 0 | 0.0 |
| 78.5 | DOUGLAS | 0 | 0.0 | 78.5 | ST FRANCOIS | 0 | 0.0 |
| 78.5 | DUNKLIN | 0 | 0.0 | 78.5 | STE GENEVIEVE | 0 | 0.0 |
| 78.5 | GASCONADE | 0 | 0.0 | 78.5 | SALINE | 0 | 0.0 |
| 78.5 | GENTRY | 0 | 0.0 | 78.5 | SCHUYLER | 0 | 0.0 |
| 78.5 | GRUNDY | 0 | 0.0 | 78.5 | SCOTLAND | 0 | 0.0 |
| 78.5 | HARRISON | 0 | 0.0 | 78.5 | SCOTT | 0 | 0.0 |
| 78.5 | HENRY | 0 | 0.0 | 78.5 | SHELBY | 0 | 0.0 |
| 78.5 | HICKORY | 0 | 0.0 | 78.5 | STODDARD | 0 | 0.0 |
| 78.5 | HOLT | 0 | 0.0 | 78.5 | STONE | 0 | 0.0 |
| 78.5 | JOHNSON | 0 | 0.0 | 78.5 | TANEY | 0 | 0.0 |
| 78.5 | KNOX | 0 | 0.0 | 78.5 | VERNON | 0 | 0.0 |
| 78.5 | LACLEDE | 0 | 0.0 | 78.5 | WASHINGTON | 0 | 0.0 |
| 78.5 | LEWIS | 0 | 0.0 | 78.5 | WAYNE | 0 | 0.0 |
| 78.5 | LINN | 0 | 0.0 | 78.5 | WEBSTER | 0 | 0.0 |
| | | | | 78.5 | WORTH | 0 | 0.0 |
| | | | | 78.5 | WRIGHT | 0 | 0.0 |

TABLE 4.0.18

GLOSSARY

AMBULANCE INVOLVED TRAFFIC CRASH: Any crash in which one or more ambulances were directly involved in the incident.

EMERGENCY SERVICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more emergency service vehicles (i.e., police, fire, ambulance, and 'other' emergency service vehicle) were directly involved in the incident.

FATAL TRAFFIC CRASH: A crash in which one or more persons were killed as a result of the crash and their death(s) occurred within 30 days of the incident.

FIRE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more fire vehicles were directly involved in the incident.

PERSONAL INJURY TRAFFIC CRASH: Any crash in which no person was killed but one or more persons were injured in the incident.

POLICE VEHICLE INVOLVED TRAFFIC CRASH: Any crash in which one or more police vehicles were directly involved in the incident.

PROPERTY DAMAGE TRAFFIC CRASH: Any crash in which no person was killed or injured but property was damaged in the incident.

QUARTILE: The value that marks the boundary between two consecutive intervals in a frequency distribution of four intervals with each containing one quarter of the total population.

RATE OF CHANGE: The formula is:

$$\frac{\text{Value in Current Period} - \text{Value in Base Period}}{\text{Value in Base Period}} \times 100$$

RURAL AREA: Any community of less than 5,000 population or an unincorporated area of the State.

URBAN AREA: Any community in the State having a population of 5,000 or more.